

Section J

Site Systems & Regulatory Analysis

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INTRODUCTION

Site Systems and Regulatory Analysis consists of Project Baseline Summary (PBS) RL-SS01, Work Breakdown Structure (WBS) 3.4.1 (except for 3.4.1.3, 3.4.1.7, and 3.4.1.8). The six sub-projects addressed in this section are:

- Planning and Integration (WBS 3.4.1.1)
- Environmental Compliance Program (WBS 3.4.1.2)
- Systems Engineering and Integration (WBS 3.4.1.4)
- Information Resource Management (WBS 3.4.1.5)
- Training (WBS 3.4.1.6)
- Hazardous Materials Management and Emergency Response (HAMMER) (WBS 3.4.1.9)

NOTE: Unless otherwise noted, all information contained herein is as of the end of November 2002.

There are no milestones (EA, DOE-HQ, or RL) in Fiscal Year (FY) 2003 for this PBS.

NOTABLE ACCOMPLISHMENTS

Planning & Integration (P&I) WBS 3.4.1.1

DOE-HQ Unified Field Budget Request (**UNICALL)** — P&I compiled and issued to RL the "Cost Of Work For Others" report, which was updated for FY 2002 year-end amounts in support of the FY 2004 UNICALL. This report includes Project Hanford Management Contract (PHMC) work performed on site for both Federal and Non-Federal sponsors, including work for the Department of Defense – Puget Sound Naval Shipyard, Bonneville Power Administration, and for various state and local agencies.

Government Furnished Services/Information (GFS/I) — P&I coordinated and submitted to RL a status of required GFS/I on December 17, 2002. Future status reporting (quarterly) will be generated from automated data queries, from project-integrated schedules versus the current manual input process. Data reported will include only those significant GFS/I actions as noted in the FH contract Performance Incentives. FH will code contractual GFS/I into Primavera (P3) schedules via unique identifiers, displaying logic ties, durations, baseline date and forecast date.

Environmental Compliance Program (ECP) WBS 3.4.1.2

DOE Quarterly Environmental Forum — FH Environment and Regulation (E&R) sponsored and coordinated the DOE Quarterly Environmental Forum held at the Richland Federal Building Auditorium on November 21, 2002. The purpose of the forum is for presenters to discuss environmental regulatory topics and policy information with invited Hanford Site environmental personnel. The topics presented at this meeting included the: (1) Collodian Settlement Agreement; (2) Single Shell Tank Closure Regulatory Process; (3) Groundwater/Vadose Zone Project; and (4) National Emission Standards for Hazardous Air Pollutants (NESHAPs) update.

Spill and Release Reporting — Appropriate reporting responses were coordinated for four non-reportable releases of a hazardous substance and/or a petroleum product released to the environment. All of these releases were cleaned up and disposed of per state and federal requirements. There were two reportable events with a release to the environment and five reportable code non-compliance events reported directly to the regulatory agencies by FH through the Occurrence Notification Center (ONC).

291-Z-1 Emission Sampling — Since early 2000, the Washington State Department of Health (WDOH) has been concerned over the sampling accuracy of the system that operated from 1978 to May 2002, when it was replaced. Responding to those concerns, FH conducted an aerosol test, a year of co-sampling, and a study of the old record sampling line and rake. The aerosol test indicated the old system performed satisfactorily, sampling greater than 100 percent of the aerosol concentration sampled by a test probe position between the aerosol generator and the old system. The co-sampling, consisting of 27 biweekly samples, demonstrated no significant statistical difference between the old sampling system results and the results obtained via a state-of-the-art shrouded probe. And finally, analytical study of the old sampling line and rake revealed that the reported plutonium (Pu)-239/240 emissions over more than 20 years had been overestimated by 26 percent. The significance of these findings is positive for assuring regulators and the public that older Hanford stacks, and likely others of similar design and operating environment within the DOE complex, have the capability to adequately sample radionuclide emissions.

Regulator Inspection Support — The following regulator facility inspections and follow-up to information and/or action requests were coordinated:

- On November 13, 2002, the Washington State Department of Ecology (Ecology) inspected the 100N sewage lagoon. No concerns were relayed by Ecology.
- On November 14, 2002, Environmental Protection Agency (EPA)/Ecology toured Waste Encapsulation and Storage Facility (WESF), T-Plant and Waste Receiving and Processing (WRAP) facilities. Attendees included Inspectors from each agency. Also, drive-by tours were conducted on the 204-AR Unloading Station, Evaporator, and Liquid Effluent Retention Facility (LERF). There were no concerns relayed by agency personnel.

Systems Engineering and Integration (SE&I) WBS 3.4.1.4

System Engineering Management System Solution — In support of the efforts under the Hanford Site Analyses and Models and the Hanford Site Requirements Analysis Reports, the following work was accomplished:

- Continued gathering facility information to support the rough order of magnitude (ROM) model analysis for the Central Plateau Remediation Project (CPRP). This information will be used to support the CPRP baseline development activities.
- Worked with Requirements Management and Integration to analyze PHMC requirements for applicability to clean up work scope. This work will be used to implement the revised statement of work.
- Continuing to work on a revised statement of work for RL's review for the new Performance Indicators.

System Engineering Technical Products — In support of the efforts for Prime Contract Integration the following work was completed:

- Working with CH2M HILL Hanford Group, Inc. (CH2M HILL) and Spent Nuclear Fuel (SNF) Project to clarify interface within the Canister Storage Building relative to receipt and storage of Immobilized High Level Waste from the Waste Treatment Plant.

Information Resource Management (IRM) WBS 3.4.1.5

Chemical Inventory Tracking System (CITS), Phase 2 Implementation — The CITS, a system that tracks and manages chemicals from procurement through final disposition, implemented Phase 2, the Inventory module and the Barcode module. This application has added functionality and enhanced data integrity as compared to the Chemical Management System (CMS) that it is replacing.

Microsoft Internet Security and Acceleration (ISA) Web Filter Pilot — A pilot of ISA/Web Filter software has been implemented to restrict access by Hanford Local Area Network (HLAN) users to unauthorized web sites.

Training WBS 3.4.1.6

Hazardous Waste Training — Two hundred and ninety-nine students were trained in hazardous waste handling during November 2002. Twelve 8-hour refreshers and one combination (24/40/Bridge) class were conducted. The combination course allows students to attend the first three days (24-Hour Initial), or all five days (40-Hour Initial), or the final three days (Bridge to 40-Hour).

Respiratory Training — One hundred and fifty-three students were trained in respiratory protection during November 2002. Eighteen respiratory protection refresher classes and two respiratory protection initial classes were conducted. In addition, four special respiratory protection classes were added, providing training for ten students just in time to meet work requirements.

Mask Fit Training — Two hundred and five students were processed through Mask Fit during November 2002.

Occupational Safety and Health (OSH) Training — Training supported the following OSH training activities during November 2002:

- Eight sessions were delivered for 51 students on various hoisting and rigging topics during November 2002. The topics included basic crane and rigging, aerial lift safety, load securing, and inspection of overhead cranes.
- A new Pilot/Escort Vehicle Operator Requalification Course was initiated November 2002. The requalification course is intended for individuals to maintain their Washington State Pilot/Escort Vehicle Operator endorsement. Prior requalification was done by completing the initial eight-hour course. The requalification course is four-hours, half the duration of the initial course, and will result in a cost savings of approximately $15,000 per year.
- Training developed a master task list using a sampling of crane maintenance procedures from the various FH facilities. A task rating survey will be developed and a panel of subject matter experts will rate the tasks in order to produce a task-to-training matrix.

Nuclear Safety Training — Training supported the following Nuclear Safety training activities during November 2002:

- Seven sessions of nuclear criticality safety training were delivered for 35 students during November 2002.
- Thirty-eight sessions of radiation worker training were held during November 2002. Fifty-four students attended 18 sessions of initial radiation worker training, and 155 students attended 20 sessions of radiation worker retraining.
- Five sessions of the continuing training cycle for radiation control technicians (RCTs) were completed during November 2002. The two-day class contains lessons on the area radiation monitor, personnel contamination monitor, continuous air monitor and the E-600 instrument. The course also covers drill design and implementation, lessons learned, conduct of operations, and a hands-on drill.
- Six students completed the self-paced/self-study program for newly hired senior RCTs during November 2002. These experienced technicians are required to initially qualify at FH by demonstrating proficiency on the Fundamental Academics, Site Academics, and Site Generic on-the-job training (OJT)/on-the-job evaluations (OJEs). They are also required to complete an oral examination board.

- Nine lessons in the initial Radiation Worker Training Program have been converted to the Portable Document Format and placed on the Intranet Radiation Protection home page. This will allow students to review the student study guide prior to attending the course. Additional nuclear safety training materials available on the Intranet include Criticality Safety Training for Managers and Engineers and Fissile Material Handlers student study guides; RCT Fundamental Academics, RCT Site Academics, and RCT Site Generic OJT program.

Emergency Preparedness (EP) Training — Training supported the following EP training activities during November 2002:

- Hanford Incident Command System Refresher Training – 45 students
- Building Emergency Director Refresher Training – 6 students
- Building Warden Refresher Training – 11 students

Web-Based Training (WBT) — Training offers WBT through the HAMMER Courseware Management System (HAMMERCMS). In November 2002, HAMMERCMS recorded 3,145 course completions. This includes 805 Hanford General Employee Training (HGET) student completions.

Hammer WBS 3.4.1.9

Hanford Site Training at HAMMER — HAMMER's first priority is to deliver hands-on training to the Hanford workforce. During November, 145 classes were conducted at the Volpentest HAMMER facility, for a total of 2,115 Hanford site student days. Highest attended health and safety classes included Hazardous Waste Operations, Radiation Worker II Requalification, Respiratory Protection, Basic Medic First Aid training, and Introductory Engineering training. Overall satisfaction, rated on a scale from one to five, for the month of November: Course Content 4.48, Instructor(s) 4.61 and Facility 4.54.

Brokered Classes — In support of the Hanford site training needs, HAMMER brokered or facilitated 12 training sessions covering 12 specific course contents. These training sessions supported PHMC and Office of River Protection contractors as well as FH facility training. Training was provided to CH2M HILL, Pacific Northwest National Laboratory (PNNL), SNF and other FH projects. Topics covered Lock and Tag – Initial, Panorama Business View Training, As low as reasonably achievable (ALARA) Training for Technical Support Personnel, Leadership Essentials, Supply Chain Processes, and Bidding and Execution of Risk Projects. Multi-contractor sessions were also provided on Water Hammer, Goof-Proof Grammar, and Introduction to Hanford Transportation Safety and Pilot Escort Vehicle Operator.

Environmental Assessment (EA) — The EA for the HAMMER site's expansion was approved on November 25, 2002 by RL. A Finding of no Significant Impact (FONSI) was also issued on the same day. The issuance of the EA and FONSI clears the way, from an environmental standpoint, for the Emergency Vehicle Operations Course (EVOC) project. However, the EVOC remains on hold pending resolution of the FY 2003 budget. The EVOC contract was awarded to A&B Asphalt, Benton City, WA for $735K. The total project cost, including engineering, construction management, and acceptance testing is projected to be $991K, and will be completed in the spring of 2003.

BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

Environmental Compliance Program
From a recent revision of procedure HNF-PRO-459, *Environmental Training*, an action was taken to merge the environmental training course descriptions that appeared in HNF-PRO-459 with the Hanford

course catalog. The information has been consolidated and now only appears in the course catalog. Dangerous Waste Training plans to comply with RCRA training requirements within the projects will be revised to delete the duplicative course description tables and reference the course catalog.

Training
Training completed the Training Program Description (TPD) for technical staff and posted on the Intranet. This TPD addresses those engineers and other exempt personnel classified as technical staff, and defines the minimum training for qualification, continuing training, and continued qualification.

Opportunities for Improvement

Information Resource Management
The first wireless Personal Digital Assistant (PDA) application, to automate the field walkdown process, is in test. It combines the pocket personal computer (PC) and Microsoft ActiveSync software with mobile access to the Automated Job Hazard Analysis (AJHA) database.

Information Resource Management
The Air Magnet wireless handheld solution has been selected to design and administer 802.11b wireless systems that are cost effective, reliable, scalable and efficient. Its advantages include full support for HLAN security policies, identification of "rogue" access points, the ability to analyze the entire 2.4Ghz ISM spectrum for maximum design efficiency, and performance testing (throughput, packet loss, retries, etc.).

UPCOMING ACTIVITIES

Planning & Integration
- Support to Life Cycle Cost reductions **-** ongoing

Environmental Compliance Program Environmental Compliance Program
- ECP-03-301, Annual Benton Clean Air Authority Asbestos Notification of Intent **-** due December 31, 2002
- ECP-03-703, Quarter 2 RCRA Permit Class I Modification Notification - due January 3, 2003
- ECP-03-802, Quarter 2 NESAHP Status Report - due January 24, 2003
- ECP-03-401, ST 4508 Log of Significant Discharges - due January 31, 2003

Systems Engineering & Integration (SE&I)
- In response to Project comments on the Technical Baseline, SE&I is working to improve the Hanford Site Technical Database (HSTD) functional analysis **-** due January FY 2003 for FY 2003 interim report (through December 2002).

Information Resource Management
- Windows XP **-** The Office XP pilot has ended in preparation for moving users to Office XP during conversion to Windows XP, and the end date for the Windows XP project has been moved to December 31, 2003, to allow for computer purchases during two fiscal years. The end date extension is due to the large number of computers that need to be purchased to operate Windows XP.
- Narrowband Radio Migration Project - The Narrowband Radio Migration Project modifies or replaces existing radio systems to insure the Hanford radio systems operate in compliance with the National Telecommunication and Information Administration (NTIA) Federal Narrowband Mandate by January 1, 2005. The Narrowband Radio Migration Project planning continues, and a major contract for the project was awarded.

Training

- Train Hanford Site workers to meet health and safety requirements **-** ongoing

Hammer

- Support Hanford Site training requirements at HAMMER **-** ongoing

MILESTONE ACHIEVEMENT

FH CONTRACT MILESTONES

There are no milestones (EA, DOE-HQ, or RL) in FY 2003 for this PBS.

ISSUES

TECHNICAL, REGULATORY, EXTERNAL AND DOE ISSUES AND DOE REQUESTS

None to report.

BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

None to report.